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**RAW SEQUENCE LISTING**

The Biotechnology Systems Branch of the Scientific and Technical  
Information Center (STIC) no errors detected.

Application Serial Number: 09/416,902  
Source: IFW16  
Date Processed by STIC: 6-2/-05

***ENTERED***

**CRF Errors Edited by the STIC Systems  
Branch**

Serial Number:

09/416,902

CRF Edit Date:

6/21/05

Edited by:

zue

\_\_\_ Realigned nucleic acid/amino acid numbers/text in cases where the sequence text "wrapped" to the next line

\_\_\_ Corrected the SEQ ID NO. Sequence numbers edited were:

\_\_\_\_\_

\_\_\_ Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited:

\_\_\_\_\_

☒ Deleted: ☒ invalid beginning/end-of-file text ; \_\_\_ page numbers

\_\_\_ Inserted mandatory headings/numeric identifiers, specifically:

\_\_\_\_\_

\_\_\_ Moved responses to same line as heading/numeric identifier, specifically:

\_\_\_\_\_

\_\_\_ Other:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Revised 09/09/2003

Raw Sequence Listing before editing,  
for reference only



IFW16

## RAW SEQUENCE LISTING

DATE: 06/21/2005

PATENT APPLICATION: US/09/416,902

TIME: 16:21:27

Input Set : N:\KEISHA\09416902.txt

Output Set: N:\CRF4\06212005\I416902.raw

3 <110> APPLICANT: Cambridge Antibody Technology  
 4 Cambridge Antibody Technology Limited  
 5 Medical Research Council  
 6 McCafferty, John  
 7 Pope, Anthony  
 8 Johnson, Kevin  
 9 Hoogenboom, Hendricus  
 10 Griffiths, Andrew  
 11 Jackson, Ronald  
 12 Holliger, Kasper  
 13 Marks, James  
 14 Clackson, Timothy  
 15 Chiswell, David  
 16 Winter, Gregory  
 17 Bonert, Timothy

19 <120> TITLE OF INVENTION: Methods for Producing Members of Specific Binding Pairs  
 21 <130> FILE REFERENCE: 05569.0004.DVUS06  
 23 <140> CURRENT APPLICATION NUMBER: US 09/416,902

C--> 24 <141> CURRENT FILING DATE: 1999-10-13  
 26 <150> PRIOR APPLICATION NUMBER: GB 9015198.6  
 27 <151> PRIOR FILING DATE: 1990-07-10  
 29 <150> PRIOR APPLICATION NUMBER: GB 9022845.3  
 30 <151> PRIOR FILING DATE: 1990-10-19

W--> 32 <150> PRIOR APPLICATION NO: GB 9022845.3  
 33 <151> PRIOR FILING DATE: 1990-10-19  
 35 <150> PRIOR APPLICATION NUMBER: GB 9024503.6  
 36 <151> PRIOR FILING DATE: 1990-11-12  
 38 <150> PRIOR APPLICATION NUMBER: GB 9104744.9  
 39 <151> PRIOR FILING DATE: 1991-03-06  
 41 <150> PRIOR APPLICATION NUMBER: GB 9110549.4  
 42 <151> PRIOR FILING DATE: 1991-05-15  
 44 <150> PRIOR APPLICATION NUMBER: PCT/GB91/01134  
 45 <151> PRIOR FILING DATE: 1991-07-10  
 47 <150> PRIOR APPLICATION NUMBER: US 07/971,857  
 48 <151> PRIOR FILING DATE: 1993-01-08  
 50 <150> PRIOR APPLICATION NUMBER: US 08/484,893  
 51 <151> PRIOR FILING DATE: 1995-06-07  
 53 <160> NUMBER OF SEQ ID NOS: 272  
 55 <170> SOFTWARE: PatentIn version 3.1  
 57 <210> SEQ ID NO: 1  
 58 <211> LENGTH: 5  
 59 <212> TYPE: PRT  
 60 <213> ORGANISM: Bacteriophage fd

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## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/416,902

DATE: 06/21/2005

TIME: 16:21:27

Input Set : N:\KEISHA\09416902.txt

Output Set: N:\CRF4\06212005\I416902.raw

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62 <400> SEQUENCE: 1
64 Gln Val Gln Leu Gln
65 1 5
68 <210> SEQ ID NO: 2
69 <211> LENGTH: 5
70 <212> TYPE: PRT
71 <213> ORGANISM: Bacteriophage fd
73 <400> SEQUENCE: 2
75 Val Thr Val Ser Ser
76 1 5
79 <210> SEQ ID NO: 3
80 <211> LENGTH: 5
81 <212> TYPE: PRT
82 <213> ORGANISM: Bacteriophage fd
84 <400> SEQUENCE: 3
86 Leu Glu Ile Lys Arg
87 1 5
90 <210> SEQ ID NO: 4
91 <211> LENGTH: 75
92 <212> TYPE: DNA
93 <213> ORGANISM: Artificial Sequence
95 <220> FEATURE:
96 <223> OTHER INFORMATION: oligonucleotide for mutagenesis
98 <400> SEQUENCE: 4
99 actttcaaca gtttctgcgg cgcgccgttt gatctcgagc tcttcgagtt ggacctgtgc 60
101 actgtgagaa tagaa 75
104 <210> SEQ ID NO: 5
105 <211> LENGTH: 22
106 <212> TYPE: DNA
107 <213> ORGANISM: Artificial Sequence
109 <220> FEATURE:
110 <223> OTHER INFORMATION: PCR primer
112 <400> SEQUENCE: 5
113 aggtgcagct gcaggagtca gg 22
116 <210> SEQ ID NO: 6
117 <211> LENGTH: 34
118 <212> TYPE: DNA
119 <213> ORGANISM: Artificial Sequence
121 <220> FEATURE:
122 <223> OTHER INFORMATION: PCR primer
124 <400> SEQUENCE: 6
125 ggtgacctcg agtgaagatt tgggctcaac tttc 34
128 <210> SEQ ID NO: 7
129 <211> LENGTH: 27
130 <212> TYPE: DNA
131 <213> ORGANISM: Artificial Sequence
133 <220> FEATURE:
134 <223> OTHER INFORMATION: PCR primer
136 <400> SEQUENCE: 7

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## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/416,902

DATE: 06/21/2005

TIME: 16:21:27

Input Set : N:\KEISHA\09416902.txt

Output Set: N:\CRF4\06212005\I416902.raw

137 tgaggacwcw gccgtctact actgtgc 27

140 <210> SEQ ID NO: 8

141 <211> LENGTH: 24

142 <212> TYPE: DNA

143 <213> ORGANISM: Artificial Sequence

145 <220> FEATURE:

146 <223> OTHER INFORMATION: oligonucleotide probe distinguishing between pAb D1.3 and

pAB NQ1

147 1

149 <400> SEQUENCE: 8

150 gtagtcaagc ctataatctc tctc 24

153 <210> SEQ ID NO: 9

154 <211> LENGTH: 51

155 <212> TYPE: DNA

156 <213> ORGANISM: Artificial Sequence

158 <220> FEATURE:

159 <223> OTHER INFORMATION: PCR primer

161 <400> SEQUENCE: 9

162 tattctcaca gtgcacaaac tgttgaacgg acaccagaaa tgctgttct g 51

165 <210> SEQ ID NO: 10

166 <211> LENGTH: 39

167 <212> TYPE: DNA

168 <213> ORGANISM: Artificial Sequence

170 <220> FEATURE:

171 <223> OTHER INFORMATION: PCR primer

173 <400> SEQUENCE: 10

174 acatgtacat gcggccgctt tcagccccag agcggttt 39

177 <210> SEQ ID NO: 11

178 <211> LENGTH: 33

179 <212> TYPE: DNA

180 <213> ORGANISM: Artificial Sequence

182 <220> FEATURE:

183 <223> OTHER INFORMATION: PCR primer

185 <400> SEQUENCE: 11

186 tttaatgagg atccacaggt gcagctgcaa gag 33

189 <210> SEQ ID NO: 12

190 <211> LENGTH: 30

191 <212> TYPE: DNA

192 <213> ORGANISM: Artificial Sequence

194 <220> FEATURE:

195 <223> OTHER INFORMATION: PCR primer

197 <400> SEQUENCE: 12

198 aacgaatgga tcccgtttga tctcaagctt 30

201 <210> SEQ ID NO: 13

202 <211> LENGTH: 24

203 <212> TYPE: DNA

204 <213> ORGANISM: Artificial Sequence

206 <220> FEATURE:

207 <223> OTHER INFORMATION: oligonucleotide for mutagenesis - removal of a BamH1 site

209 <400> SEQUENCE: 13

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/416,902

DATE: 06/21/2005

TIME: 16:21:27

Input Set : N:\KEISHA\09416902.txt

Output Set: N:\CRF4\06212005\I416902.raw

210 caaacgaatg ggtcctcctc atta 24

213 <210> SEQ ID NO: 14

214 <211> LENGTH: 26

215 <212> TYPE: DNA

216 <213> ORGANISM: Artificial Sequence

218 <220> FEATURE:

219 <223> OTHER INFORMATION: oligonucleotide for mutagenesis - introduction of a BamH1 site

221 <400> SEQUENCE: 14

222 ccrccaccct cggatccrcc accctc 26

225 <210> SEQ ID NO: 15

226 <211> LENGTH: 15

227 <212> TYPE: PRT

228 <213> ORGANISM: Artificial Sequence

230 <220> FEATURE:

231 <223> OTHER INFORMATION: linker between VH and VLK

233 <400> SEQUENCE: 15

235 Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser

236 1 5 10 15

239 <210> SEQ ID NO: 16

240 <211> LENGTH: 23

241 <212> TYPE: DNA

242 <213> ORGANISM: Artificial Sequence

244 <220> FEATURE:

245 <223> OTHER INFORMATION: primer for reverse transcription

247 <400> SEQUENCE: 16

248 ctggacaggg atccagagtt cca 23

251 <210> SEQ ID NO: 17

252 <211> LENGTH: 23

253 <212> TYPE: DNA

254 <213> ORGANISM: Artificial Sequence

256 <220> FEATURE:

257 <223> OTHER INFORMATION: primer for reverse transcription

259 <400> SEQUENCE: 17

260 ctggacaggg ctccatagtt cca 23

263 <210> SEQ ID NO: 18

264 <211> LENGTH: 32

265 <212> TYPE: DNA

266 <213> ORGANISM: Artificial Sequence

268 <220> FEATURE:

269 <223> OTHER INFORMATION: PCR primer

271 <400> SEQUENCE: 18

272 tgaggagacg gtgaccgtgg tcccttgagg cc 32

275 <210> SEQ ID NO: 19

276 <211> LENGTH: 22

277 <212> TYPE: DNA

278 <213> ORGANISM: Artificial Sequence

280 <220> FEATURE:

281 <223> OTHER INFORMATION: PCR primer

283 <400> SEQUENCE: 19

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/416,902

DATE: 06/21/2005

TIME: 16:21:27

Input Set : N:\KEISHA\09416902.txt

Output Set: N:\CRF4\06212005\I416902.raw

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284 aggtsmarct gcagsagtcw gg                                22
287 <210> SEQ ID NO: 20
288 <211> LENGTH: 24
289 <212> TYPE: DNA
290 <213> ORGANISM: Artificial Sequence
292 <220> FEATURE:
293 <223> OTHER INFORMATION: PCR primer
295 <400> SEQUENCE: 20
296 ccgtttgatt tccagcttgg tgcc                                24
299 <210> SEQ ID NO: 21
300 <211> LENGTH: 24
301 <212> TYPE: DNA
302 <213> ORGANISM: Artificial Sequence
304 <220> FEATURE:
305 <223> OTHER INFORMATION: PCR primer
307 <400> SEQUENCE: 21
308 ccgttttatt tccagcttgg tccc                                24
311 <210> SEQ ID NO: 22
312 <211> LENGTH: 24
313 <212> TYPE: DNA
314 <213> ORGANISM: Artificial Sequence
316 <220> FEATURE:
317 <223> OTHER INFORMATION: PCR primer
319 <400> SEQUENCE: 22
320 ccgttttatt tccaactttg tccc                                24
323 <210> SEQ ID NO: 23
324 <211> LENGTH: 24
325 <212> TYPE: DNA
326 <213> ORGANISM: Artificial Sequence
328 <220> FEATURE:
329 <223> OTHER INFORMATION: PCR primer
331 <400> SEQUENCE: 23
332 ccgtttcagc tccagcttgg tccc                                24
335 <210> SEQ ID NO: 24
336 <211> LENGTH: 24
337 <212> TYPE: DNA
338 <213> ORGANISM: Artificial Sequence
340 <220> FEATURE:
341 <223> OTHER INFORMATION: PCR primer
343 <400> SEQUENCE: 24
344 gacattgagc tcacccagtc tcca                                24
347 <210> SEQ ID NO: 25
348 <211> LENGTH: 24
349 <212> TYPE: DNA
350 <213> ORGANISM: Artificial Sequence
352 <220> FEATURE:
353 <223> OTHER INFORMATION: PCR primer
355 <400> SEQUENCE: 25
356 tggagactcg gtgagctcaa tgtc                                24

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RAW SEQUENCE LISTING ERROR SUMMARY  
PATENT APPLICATION: US/09/416,902

DATE: 06/21/2005  
TIME: 16:21:28

Input Set : N:\KEISHA\09416902.txt  
Output Set: N:\CRF4\06212005\I416902.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:37; Xaa Pos. 2,4,5  
Seq#:38; Xaa Pos. 1,2,4,5  
Seq#:75; N Pos. 16,17,18,19,20,21  
Seq#:76; N Pos. 16,17,18  
Seq#:77; N Pos. 16,17,18

**VERIFICATION SUMMARY**

PATENT APPLICATION: US/09/416,902

DATE: 06/21/2005

TIME: 16:21:28

Input Set : N:\KEISHA\09416902.txt

Output Set: N:\CRF4\06212005\I416902.raw

L:24 M:271 C: Current Filing Date differs, Replaced Current Filing Date  
L:32 M:288 W: Application Number is Repeated, <150> PRIOR APPLICATION NUMBER  
L:512 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:37 after pos.:0  
L:541 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:38 after pos.:0  
L:995 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:75 after pos.:0  
L:1014 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:76 after pos.:0  
L:1033 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:77 after pos.:0



IFW16

## RAW SEQUENCE LISTING

DATE: 06/16/2005

PATENT APPLICATION: US/09/416,902

TIME: 14:53:54

Input Set : E:\DM\_US-#8213676-v1-Sequence\_Listing.DOC

Output Set: N:\CRF4\06162005\I416902.raw

3 <110> APPLICANT: Cambridge Antibody Technology  
 4 Cambridge Antibody Technology Limited  
 5 Medical Research Council  
 6 McCafferty, John  
 7 Pope, Anthony  
 8 Johnson, Kevin  
 9 Hoogenboom, Hendricus  
 10 Griffiths, Andrew  
 11 Jackson, Ronald  
 12 Holliger, Kasper  
 13 Marks, James  
 14 Clackson, Timothy  
 15 Chiswell, David  
 16 Winter, Gregory  
 17 Bonert, Timothy  
 19 <120> TITLE OF INVENTION: Methods for Producing Members of Specific Binding Pairs  
 21 <130> FILE REFERENCE: 05569.0004.DVUS06  
 23 <140> CURRENT APPLICATION NUMBER: US 09/416,902  
 C--> 24 <141> CURRENT FILING DATE: 1999-10-13  
 26 <150> PRIOR APPLICATION NUMBER: GB 9015198.6  
 27 <151> PRIOR FILING DATE: 1990-07-10  
 29 <150> PRIOR APPLICATION NUMBER: GB 9022845.3  
 30 <151> PRIOR FILING DATE: 1990-10-19  
 W--> 32 <150> PRIOR APPLICATION NO: GB 9022845.3  
 33 <151> PRIOR FILING DATE: 1990-10-19  
 35 <150> PRIOR APPLICATION NUMBER: GB 9024503.6  
 36 <151> PRIOR FILING DATE: 1990-11-12  
 38 <150> PRIOR APPLICATION NUMBER: GB 9104744.9  
 39 <151> PRIOR FILING DATE: 1991-03-06  
 41 <150> PRIOR APPLICATION NUMBER: GB 9110549.4  
 42 <151> PRIOR FILING DATE: 1991-05-15  
 44 <150> PRIOR APPLICATION NUMBER: PCT/GB91/01134  
 45 <151> PRIOR FILING DATE: 1991-07-10  
 47 <150> PRIOR APPLICATION NUMBER: US 07/971,857  
 48 <151> PRIOR FILING DATE: 1993-01-08  
 50 <150> PRIOR APPLICATION NUMBER: US 08/484,893  
 51 <151> PRIOR FILING DATE: 1995-06-07  
 53 <160> NUMBER OF SEQ ID NOS: 272  
 55 <170> SOFTWARE: PatentIn version 3.1

Does Not Comply  
Corrected Diskette Needed

(Pg. 2)

ERRORED SEQUENCES

## RAW SEQUENCE LISTING

DATE: 06/16/2005

PATENT APPLICATION: US/09/416,902

TIME: 14:53:54

Input Set : E:\DM\_US-#8213676-v1-Sequence\_Listing.DOC

Output Set: N:\CRF4\06162005\I416902.raw

5593 &lt;210&gt; SEQ ID NO: 272

5594 &lt;211&gt; LENGTH: 15

5595 &lt;212&gt; TYPE: PRT

5596 &lt;213&gt; ORGANISM: Artificial Sequence

5598 &lt;220&gt; FEATURE:

5599 &lt;223&gt; OTHER INFORMATION: linker between VH-HuH1 and VK-HuK3

5601 &lt;400&gt; SEQUENCE: 272

5603 Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser

5604 1 5 10 15

E--&gt; 5619 - 1 -

E--&gt; 5621 - 1 -

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**VERIFICATION SUMMARY**

PATENT APPLICATION: US/09/416,902

DATE: 06/16/2005

TIME: 14:53:55

Input Set : E:\DM\_US-#8213676-v1-Sequence\_Listing.DOC

Output Set: N:\CRF4\06162005\I416902.raw

L:24 M:271 C: Current Filing Date differs, Replaced Current Filing Date  
L:32 M:288 W: Application Number is Repeated, <150> PRIOR APPLICATION NUMBER  
L:512 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:37 after pos.:0  
L:541 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:38 after pos.:0  
L:995 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:75 after pos.:0  
L:1014 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:76 after pos.:0  
L:1033 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:77 after pos.:0  
L:561-9 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:272  
M:332 Repeated in SeqNo=272

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